

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001102**Date Inspected:** 28-Dec-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 930**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Orthotropic Box Girders (OBG).

Bay 7 OBG:

The QA Inspector randomly observed ZPMC welder Chen Chuanzong ID Number 044824, utilizing the Flux Cored Arc Welding (FCAW) Process with ZPMC approved Weld Procedure Specification (WPS) in the 2F position to weld Stiffener X2H to Floor Beam Web FB015-03 at Weld Joint (WJ) FB015-03-011, 012. The QA Inspector randomly observed ZPMC CWI Cui Yi Ru monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: welding amperage 277 amps, welding voltage 28.8 volts with a travel speed of 439 millimeters mm per minute. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC welder Yuan Wensong ID Number 055491, utilizing the FCAW Process with ZPMC approved WPS WPS-B-T-2232-1 in the 2F position to weld Flange Plate X7F to Floor Beam Web FB007-05 at WJ FB007-05-004. The QA Inspector randomly observed ZPMC CWI Cui Yi Ru monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: welding amperage 306 amps, welding voltage 29.2 volts with a travel speed of 459 mm per minute. The weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder Li Haitao ID Number 044839, utilizing the FCAW Process

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with ZPMC approved WPS WPS-B-T-2232-TC-U4b-F in the 2F position to weld the reinforcing fillet weld over the single bevel groove weld attaching Flange Plate X7G to Floor Beam Web FB008-02 at WJ FB008-02-043. The QA Inspector randomly observed ZPMC CWI Cui Yi Ru monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: welding amperage 267 amps, welding voltage 30 volts with a travel speed of 496 mm per minute. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC welders Yuan Wensong ID Number 055491 and Huang Shuili ID Number 044815, utilizing the FCAW Process with ZPMC approved WPS WPS-B-T-2232-1 in the 2F position, utilizing Hitronic HIT-18-1D Automatic Welding Carriages to weld Stiffener X2J to Floor Beam Web FB007-06 at WJ FB007-06-013, 014. The QA Inspector randomly observed ZPMC CWI Cui Yi Ru monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: welding amperage 330 amps, welding voltage 28.6 volts with a travel speed of 476 mm per minute for Mr. Yuan on WJ FB007-06-013 and 300 amps, 30.2 volts with a travel speed of 476 mm per minute for Mr Hong on WJ FB007-06-014. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

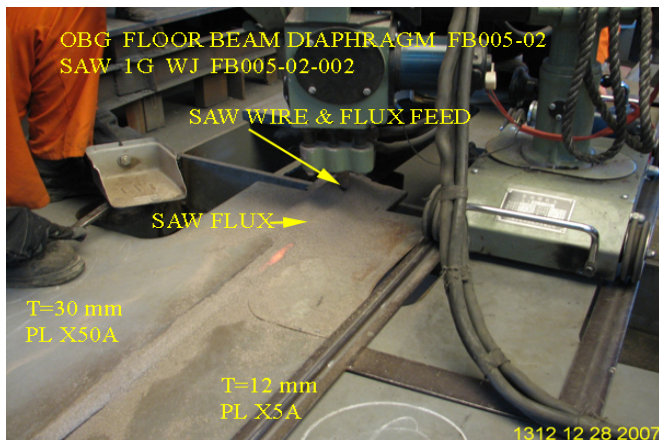
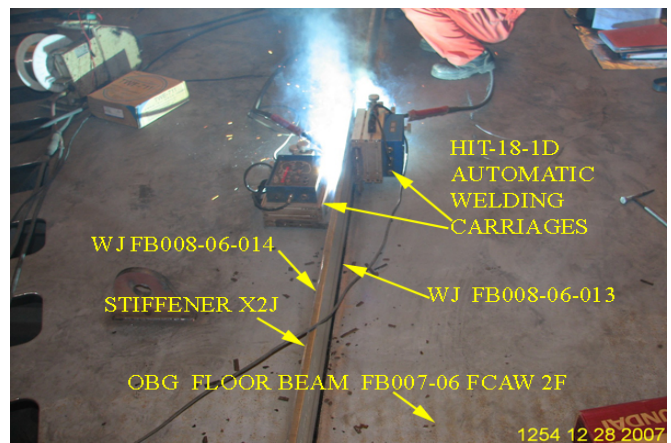
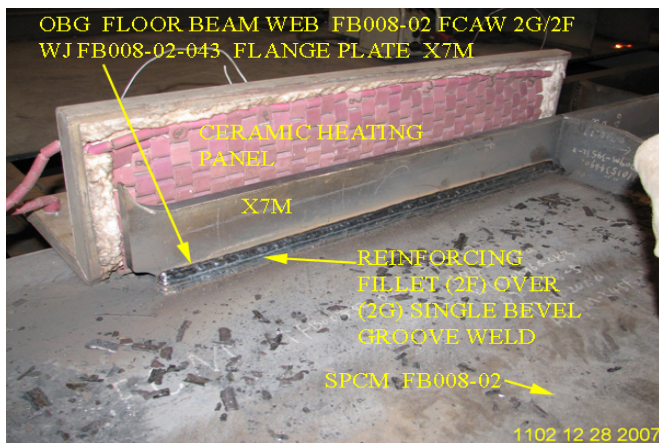
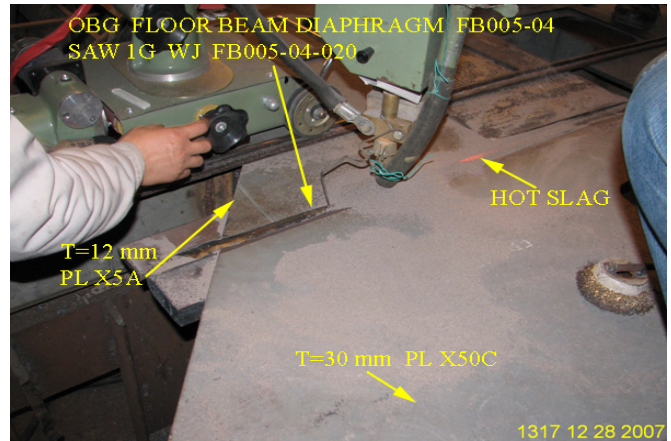
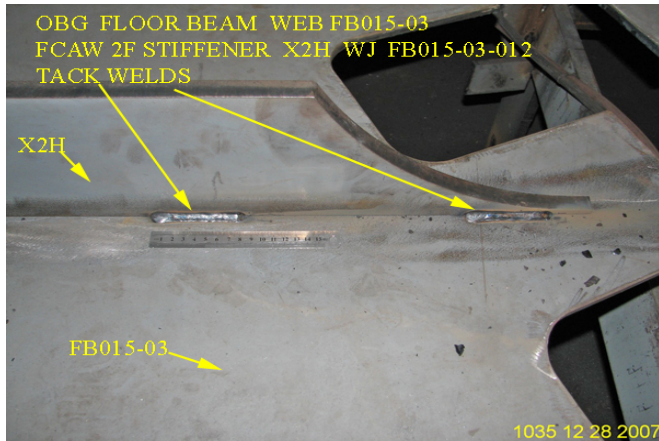
The QA Inspector randomly observed ZPMC welder Huang Xinlan ID Number 044780, utilizing the Submerged Arc Welding (SAW) Process with ZPMC approved WPS WPS-B-T-2221-B-L2c-S-1 in the 1G position to weld the fill and cover pass in Floor Beam Diaphragm FB05-02 at WJ FB005-02-002. The QA Inspector randomly observed ZPMC CWI Hu Wei Qing monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: welding amperage 536 amps, welding voltage 31.6 volts with a travel speed of 440 mm per minute. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC welder Wang Min ID Number 048296, utilizing the SAW Process with ZPMC approved WPS WPS-B-T-2221-B-L2c-S-1 in the 1G position to weld the fill and cover pass in Floor Beam Diaphragm FB05-04 at WJ FB005-04-020. The QA Inspector randomly observed ZPMC CWI Hu Wei Qing monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: welding amperage 540 amps, welding voltage 30 volts with a travel speed of 440 mm per minute. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC welder Wang Li ID Number 044772, utilizing the Shielded Metal Arc Welding Process with ZPMC approved WPS WPS-B-P-2112 in the 2F position to tack weld Stiffeners X2E, X2G and X2H to Floor Beam Web FB016-04 at WJ FB016-04-011, 012, 015, 016, 017 and 018 on Plates 94A (T=30 mm F2) + 49A T=12 mm T2) + X45A (T=12 T2). The QA Inspector randomly observed ZPMC CWI Li Zhijiang, monitoring weld parameters. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

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Summary of Conversations:

There were no relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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Inspected By: Franco,Charlie

Quality Assurance Inspector

Reviewed By: Cochran,Jim

QA Reviewer